SEQUENCE LISTING

<110> Pan, Yang												
<120> NOVEL MOLECULES OF THE TANGO-93-RELATED PROTEIN FAMILY AND USES THEREOF												
<130> 07334-369001												
<140> US 10/134,410 <141> 2002-04-29												
<150> US 09/131,263 <151> 1998-08-07												
<150> US 09/369,693 <151> 1999-08-06												
<160> 14												
<170> FastSEQ for Windows Version 4.0												
<210> 1 <211> 1360 <212> DNA <213> Mus musculus												
<220> <221> CDS <222> (137)(604)												
<pre><400> 1 gaatttggcc ctcgaggcca agaattcggc acgaggggag cctgctttct acttaggtct caaattttcc agccttgtct ttgcctaaaa tttcctgctg tttatttcaa aatagggtct acatactgtg gagctc atg atg gtt ctg agt ggg gca cta tgc ttc cga atg</pre>												
1 5 10	172											
aag gat tca gcc ttg aag gta ctg tat ctg cac aat aac cag ctg ctg Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu 15 20 25	220											
aag gat tca gcc ttg aag gta ctg tat ctg cac aat aac cag ctg ctg Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu												
aag gat tca gcc ttg aag gta ctg tat ctg cac aat aac cag ctg ctg Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu 15 20 25 gct gga gga ctg cac gca gag aag gtc att aaa ggt gag gag atc agt Ala Gly Gly Leu His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser	220											
aag gat tca gcc ttg aag gta ctg tat ctg cac aat aac cag ctg ctg Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu 15 20 25 gct gga gga ctg cac gca gag aag gtc att aaa ggt gag gag atc agt Ala Gly Gly Leu His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser 30 35 40 gtt gtc cca aat cgg gca ctg gat gcc agt ctg tcc cct gtc atc ctg Val Val Pro Asn Arg Ala Leu Asp Ala Ser Leu Ser Pro Val Ile Leu	220											

80 85 90 gcc aag gaa tca aag agc ttc acc ttc tac cgg cgg gat atg ggt ctt 460 Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu 100 105 acc tcc agc ttc gaa tcc gct gcc tac cca ggc tgg ttc ctc tgc acc 508 Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr 110 115 120 tca ccg gaa gct gac cag cct gtc agg ctc act cag atc cct gag gac 556 Ser Pro Glu Ala Asp Gln Pro Val Arg Leu Thr Gln Ile Pro Glu Asp 125 130 ecc gec tgg gat get ecc atc aca gae tte tac ttt cag cag tgt gae 604 Pro Ala Trp Asp Ala Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp 145 tagggctgcg tggtccccaa aactccataa gcagaggcag agtaggcagt ggcggctcct 664 gatagaggat agagagacag aggagctcca cagtaggtgg cttactcctc tccttcccta 724 ctggactece gettetgace taaggeacae agacaetete tteteetgea teccagtget 784 ggtaaatctt ctggtatttg gagctcaatg tgtagattct ttcagattgg atggtactac 844 ctctggtgtg gaacccaata gaaaccacgt aggaccaaca aagagcaaca taaaagattc 904 ttgggtgaag aagaggtggg aactgttcat acatagtaag atctgacaca gtacctcaga 964 agteetgeea tteettatgt tetggagaaa gtggaggggg ggteaceaag aetttetetg 1024 gctggctggg ccctttccct caacctttct gacatctgca gcctctctca ttcttgcctt 1084 cattetetgg ceetgaaceg agagggtgat atcaggatag etgacagaag atgaceagge 1144 acactgteet ggtttgaaac cagaggggac aataaaaaac eetgattetg gtetetaete 1204 acataaaaag aagcttgtga acattaagtg ggaagagatt gctactaaat aacatacctt 1264 1324 aaaaaaaaa aaaaaaaaa aaaaaacatg cggccg 1360 <210> 2 <211> 156 <212> PRT <213> Mus musculus <400> 2 Met Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu 25 His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn 40 Arg Ala Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Thr Glu Lys Gly Pro Ile Leu Lys Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser 90 Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe 105 Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Ser Pro Glu Ala 120

Asp Gln Pro Val Arg Leu Thr Gln Ile Pro Glu Asp Pro Ala Trp Asp

130 135 140 Ala Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp

145					150					155						
<210 <211 <212 <213	> 46 !> DN	ΝA	uscu:	lus												
gagg ggcg cttg ttct	tggt tgca agat ttca agco acco	aca a ca g cag t ggc g	ataad gtgti gagga ggaad gggai	ccago ageo aageo cateo acego	ct go	etgge aateg geet gaget ettae getga	etgga gggca tatet tetac ectec accac	a gga a cto c tgt c cto c ago g cct	actgo ggato gggg cgggg cttco	cacg jcca icag jcca jaat iggc	caga gtct agaa agga ccgc	gaag gtco aggg atca tgco	ggt of control of the	catta gtca aatto gagct cccag	gtactg aaggt atcctg stgaaa stcacc ggctgg gaggac	66 120 186 246 306 426 466
<210 <211 <212 <213	> 13 > DN	ΙA	sapie	ens												
<220 <221 <222	> CI		(52	21)												
	<400> 4 gtcgacccac gcgtccggaa cattctgagg ggagtctaca ccctgtggag ctcaag atg Met 1											59				
gtc Val	ctg Leu	agt Ser	ggg Gly 5	gcg Ala	ctg Leu	tgc Cys	ttc Phe	cga Arg 10	atg Met	aag Lys	gac Asp	tcg Ser	gca Ala 15	ttg Leu	aag Lys	107
gtg Val	ctt Leu	tat Tyr 20	ctg Leu	cat His	aat Asn	aac Asn	cag Gln 25	ctt Leu	cta Leu	gct Ala	gga Gly	30 30	ctg Leu	cat His	gca Ala	155
ggg Gly	aag Lys 35	gtc Val	att Ile	aaa Lys	ggt Gly	gaa Glu 40	gag Glu	atc Ile	agc Ser	gtg Val	gtc Val 45	ccc Pro	aat Asn	cgg Arg	tgg Trp	203
ctg Leu 50	gat Asp	gcc Ala	agc Ser	ctg Leu	tcc Ser 55	ccc Pro	gtc Val	atc Ile	ctg Leu	ggt Gly 60	gtc Val	cag Gln	ggt Gly	gga Gly	agc Ser 65	251
cag Gln	tgc Cys	ctg Leu	tca Ser	tgt Cys 70	Gly	gtg Val	ggg Gly	cag Gln	gag Glu 75	ccg Pro	act Thr	cta Leu	aca Thr	cta Leu 80	gag Glu	299
cca Pro	gtg Val	aac Asn	atc Ile 85	atg Met	gag Glu	ctc Leu	tat Tyr	ctt Leu 90	ggt Gly	gcc Ala	aag Lys	gaa Glu	tcc Ser 95	aag Lys	agc Ser	347
ttc Phe	acc Thr	ttc Phe	tac Tyr	cgg Arg	cgg Arg	gac Asp	atg Met	ggg Gly	ctc Leu	acc Thr	tcc Ser	agc Ser	ttc Phe	gag Glu	tcg Ser	395

100 105 110 get gee tae eeg gge tgg tte etg tge aeg gtg eet gaa gee gat eag 443 Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp Gln 120 125 cct gtc aga ctc acc cag ctt ccc gag aat ggt ggc tgg aat gcc ccc 491 Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala Pro 130 135 140 atc aca gac ttc tac ttc cag cag tgt gac tagggcaacg tgccccccag 541 Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp 150 aactccctgg gcagagccag ctcgggtgag gggtgagtgg aggagaccca tggcggacaa 601 teactetete tgeteteagg acceecacgt etgaettagt gggeacetga ecaetttgte 661 ttctggttcc cagtttggat aaattctgag atttggagct cagtccacgg tcctcccca 721 ctggatggtg ctactgctgt ggaaccttgt aaaaaccatg tggggtaaac tgggaataac 781 atgaaaagat ttctgtgggg gtggggtggg ggagtggtgg gaatcattcc tgcttaatgg 841 taactgacaa gtgttaccct gagccccgca ggccaaccca tccccagttg agccttatag 901 ggtcagtagc tctccacatg aagtcctgtc actcaccact gtgcaggaga gggaggtggt 961 1021 actgtcatat gctacctttc ctatctcttc cctcatcatc ttgttgtggg catgaggagg 1081 tggtgatgtc agaagaaatg gctcgagctc agaagataaa agataagtag ggtatgctga 1141 tcctctttta aaaacccaag atacaatcaa aatcccagat gctggtctct attcccatga 1201 aaaagtgctc atgacatatt gagaagacct acttacaaag tggcatatat tgcaatttat 1261 1321 gc 1323 <210> 5 <211> 155 <212> PRT <213> Homo sapiens <400> 5 Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu 10 Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg 40 Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu Pro Thr Leu Thr Leu 70 75 Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp 120 Gln Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala 135 Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp 150

<210> 6

60

120

180

240

300

360

420

465

```
<211> 465
<212> DNA
<213> Homo sapiens
<400> 6
atggtcctga gtggggcgct gtgcttccga atgaaggact cggcattgaa ggtgctttat
ctgcataata accagcttct agctggaggg ctgcatgcag ggaaggtcat taaaggtgaa
gagatcagcg tggtccccaa tcggtggctg gatgccagcc tgtcccccgt catcctgggt
gtccagggtg gaagccagtg cctgtcatgt ggggtggggc aggagccgac tctaacacta
gagccagtga acatcatgga gctctatctt ggtgccaaqq aatccaaqaq cttcaccttc
taccggcggg acatggggct cacctccagc ttcgagtcgg ctgcctaccc gggctggttc
ctgtgcacgg tgcctgaagc cgatcagcct gtcagactca cccagcttcc cqagaatqgt
ggctggaatg cccccatcac agacttctac ttccagcagt gtgac
<210> 7
<211> 177
<212> PRT
<213> Homo sapiens
<400> 7
Met Glu Ile Cys Arg Gly Leu Arg Ser His Leu Ile Thr Leu Leu Leu
Phe Leu Phe His Ser Glu Thr Ile Cys Arg Pro Ser Gly Arg Lys Ser
            20
                                25
Ser Lys Met Gln Ala Phe Arg Ile Trp Asp Val Asn Gln Lys Thr Phe
                            40
Tyr Leu Arg Asn Asn Gln Leu Val Ala Gly Tyr Leu Gln Gly Pro Asn
Val Asn Leu Glu Glu Lys Ile Asp Val Val Pro Ile Glu Pro His Ala
                                         75
Leu Phe Leu Gly Ile His Gly Gly Lys Met Cys Leu Ser Cys Val Lys
                                    90
Ser Gly Asp Glu Thr Arg Leu Gln Leu Glu Ala Val Asn Ile Thr Asp
                                105
Leu Ser Glu Asn Arg Lys Gln Asp Lys Arg Phe Ala Phe Ile Arg Ser
                            120
Asp Ser Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys Pro Gly Trp
                        135
                                             140
Phe Leu Cys Thr Ala Met Glu Ala Asp Gln Pro Val Ser Leu Thr Asn
                    150
                                         155
Met Pro Asp Glu Gly Val Met Val Thr Lys Phe Tyr Phe Gln Glu Asp
                165
                                     170
Glu
<210> 8
<211> 178
<212> PRT
<213> Mus musculus
<400> 8
Met Glu Ile Cys Trp Gly Pro Tyr Ser His Leu Ile Ser Leu Leu Leu
Ile Leu Leu Phe His Ser Glu Ala Ala Cys Arg Pro Ser Gly Lys Arg
                                 25
Pro Cys Lys Met Gln Ala Phe Arg Ile Trp Asp Thr Asn Gln Lys Thr
        35
                                                 45
```

```
Phe Tyr Leu Arg Asn Asn Gln Leu Ile Ala Gly Tyr Leu Gln Gly Pro
                        55
    50
                                             60
Asn Ile Lys Leu Glu Glu Lys Ile Asp Met Val Pro Ile Asp Leu His
Ser Val Phe Leu Gly Ile His Gly Gly Lys Leu Cys Leu Ser Cys Ala
                                     90
Lys Ser Gly Asp Asp Ile Lys Leu Gln Leu Glu Glu Val Asn Ile Thr
                                 105
Asp Leu Ser Lys Asn Lys Glu Glu Asp Lys Arg Phe Thr Phe Ile Arg
                             120
                                                 125
Ser Glu Lys Gly Pro Thr Thr Ser Phe Glu Ser Ala Ala Cys Pro Gly
                        135
                                             140
Trp Phe Leu Cys Thr Thr Leu Glu Ala Asp Arg Pro Val Ser Leu Thr
                    150
                                         155
Asn Thr Pro Glu Glu Pro Leu Ile Val Thr Lys Phe Tyr Phe Gln Glu
                                     170
Asp Gln
<210> 9
<211> 13
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetically generated primer
<400> 9
tcgagtatac caa
                                                                         13
<210> 10
<211> 17
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetically generated primer
<400> 10
cacctcgagt actaccc
                                                                         17
<210> 11
<211> 16
<212> DNA
<213> Artificial Sequence
<220>
<223> Synthetically generated primer
<400> 11
cgaggtctac caggac
                                                                         16
<210> 12
<211> 16
<212> DNA
<213> Artificial Sequence
```

```
<220>
<223> Synthetically generated primer
<400> 12
ggtctaccag gactca
                                                                      16
<210> 13
<211> 2490
<212> DNA
<213> Homo sapiens
<400> 13
ccacagetee egecaggaga aaggaacatt etgaggggag tetacaeeet gtggagetea
                                                                       60
agatggtcct gagtggggcg ctgtgcttcc gaatgaagga ctcggcattg aaggtgcttt
                                                                      120
atctgcataa taaccagctt ctagctggag ggctgcatgc agggaaggtc attaaaggtg
                                                                      180
aagagatcag cgtggtcccc aatcggtggc tggatgccag cctgtccccc gtcatcctgg
                                                                     240
300
tagagecagt gaacateatg gagetetate ttggtgecaa ggaatecaag agetteacet
                                                                     360
tetaceggeg ggacatgggg eteaceteca gettegagte ggetgeetae eegggetggt
                                                                     420
tectgtgcae ggtgcetgaa geegateage etgteagaet cacceagett eeegagaatg
                                                                      480
gtggctggaa tgcccccatc acagacttct acttccagca gtgtgactag ggcaacgtgc
                                                                      540
cccccagaac tccctgggca gagccagctc gggtgagggg tgagtggagg agacccatgg
                                                                     600
cggacaatca ctctctctgc tctcaggacc cccacgtctg acttagtggg cacctgacca
                                                                      660
ctttgtcttc tggttcccag tttggataaa ttctgagatt tggagctcag tccacggtcc
                                                                      720
tececeactg gatggtgeta etgetgtgga acettgtaaa aaceatgtgg ggtaaactgg
                                                                     780
gaataacatg aaaagatttc tgtgggggtg gggtggggga gtggtgggaa tcattcctgc
                                                                     840
ttaatggtaa ctgacaagtg ttaccctgag ccccgcaggc caacccatcc ccagttgagc
                                                                      900
cttatagggt cagtagctct ccacatgaag tcctgtcact caccactgtg caggagaggg
                                                                      960
aggtggtcat agagtcaggg atctatggcc cttggcccag ccccaccccc ttccctttaa
                                                                     1020
tectgecact gteatatget acettteeta tetetteeet eateatettg ttgtgggeat
                                                                     1080
gaggaggtgg tgatgtcaga agaaatggct cgagctcaga agataaaaga taagtagggt
                                                                     1140
atgctgatcc tcttttaaaa acccaagata caatcaaaat cccagatgct ggtctctatt
                                                                     1200
cccatgaaaa agtgctcatg acatattgag aagacctact tacaaagtgg catatattgc
                                                                     1260
aatttatttt aattaaaaga tacctattta tatatttctt tatagaaaaa agtctggaag
                                                                     1320
agtttacttc aattgtagca atgtcagggt ggtggcagta taggtgattt ttcttttaat
                                                                     1380
tctgttaatt tatctgtatt tcctaatttt tctacaatga agatgaattc cttgtataaa
                                                                     1440
aataagaaaa gaaattaatc ttgacgtaag cagagcagac atcatctctg attgtcctca
                                                                     1500
gcctccactt ccccagagta aattcaaatt gaatcgagct ctgctgctct ggttggttgt
                                                                     1560
agtagtgatc aggaaacaga tctcagcaaa gccactgagg aggaggctgt gctgagtttg
                                                                     1620
tgtggctgga atctctgggt aaggaactta aagaacaaaa atcatctggt aattctttcc
                                                                     1680
tagaaggatc acageceetg ggattecaag geattggate cagtetetaa gaaggetget
                                                                     1740
gtactggttg aattgtgtcc ccctcaaatt cacatccttc ttggaatctc agtctgtgag
                                                                     1800
tttatttgga gataaggtct ctgcagatgt agttagttaa gacaaggtca tgctggatga
                                                                     1860
aggtagacct aaattcaata tgactggttt ccttgtatga aaaggagagg acacagagac
                                                                     1920
agaggagacg cggggaagac tatgtaaaga tgaaggcaga gatcggagtt ttgcagccac
                                                                     1980
aagctaagaa acaccaagga ttgtggcaac catcagaagc ttggaagagg caaagaagaa
                                                                     2040
ttcttcccaa gaataaattt cggctgtttt aagccaccaa ggataattgg ttacagcagc
                                                                     2100
tctaggaaac taatacagct gctaaaatga tccctgtctc ctcgtgttta cattctgtgt
                                                                     2160
gtgtcccctc ccacaatgta ccaaagttgt ctttgtgacc aatagaatat ggcagaagtg
                                                                     2220
atggcatgcc acttccaaga ttaggttata aaagacactg cagcttctac ttgagccctc
                                                                     2280
tetetetgee acceaecgee eccaatetat ettggeteae tegetetggg ggaagetage
                                                                     2340
tgccatgcta tgagcaggcc tataaagaga cttacgtggt aaaaaatgaa gtctcctgcc
                                                                     2400
cacagecaca ttagtgaace tagaagcaga gactetgtga gataategat gtttgttgtt
                                                                     2460
ttaagttgct cagttttggt ctaacttgtt
                                                                     2490
<210> 14
```

<210> 14 <211> 155 <212> PRT <213> Homo sapiens

<400> 14 Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His 25 Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg Trp Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly Gly 55 Ser Gln Cys Leu Ser Cys Gly Val Gly Gln Glu Pro Thr Leu Thr Leu 70 Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe Glu 105 Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Val Pro Glu Ala Asp 115 120 Gln Pro Val Arg Leu Thr Gln Leu Pro Glu Asn Gly Gly Trp Asn Ala 135 Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp 150